PART 70 OPERATING PERMIT Office of Air Quality (and Anderson Office of Air Quality)

PQ Corporation - Anderson 1900 Columbus Avenue Anderson, Indiana 46015

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T095-7567-00027	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:

PQ Corporation Page 2 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

TABLE OF CONTENTS

A SOURCE SUMMARY

General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

B GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Permit Term [326 IAC 2-7-5(2)]
- B.3 Enforceability [326 IAC 2-7-7]
- B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]
- B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]
- B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
- B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]
- B.12 Emergency Provisions [326 IAC 2-7-16]
- B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-10] [326 IAC 2-7-12]
- B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]
- B.17 Permit Renewal [326 IAC 2-7-4]
- B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]
- B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]
- B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
- B.21 Source Modification Requirement [326 IAC 2-7-10.5]
- B.22 Inspection and Entry [326 IAC 2-7-6(2)] [IC 13-14-2-2]
- B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

C SOURCE OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]
- C.2 Opacity [326 IAC 5-1])
- C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]
- C.7 Operation of Equipment [326 IAC 2-7-6(6)]
- C.8 Stack Height [326 IAC 1-7]
- C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

Testing Requirements [326 IAC 2-7-6(1)]

C.10 Performance Testing [326 IAC 3-6]

PQ Corporation Page 3 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

TABLE OF CONTENTS (Continued)

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

- C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]
- C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]
- C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Corrective Actions an Response Steps [326 IAC 2-7-5(1)] [326 IAC 2-7-6]

- C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]
- C.18 Compliance Monitoring Plan Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]
- C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
- C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
- C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]
- D.1.2 Particulate Matter Limitation [326 IAC 12-1)]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.1.4 Record Keeping Requirements
- D.1.5 Reporting Requirements

D.2 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Compliance Determination Requirements

D.2.2 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.2.3 Visible Emissions Notations
- D.2.4 Parametric Monitoring
- D.2.5 Baghouse Inspections
- D.2.6 Broken or Failed Bag Detection

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.7 Record Keeping Requirements

PQ Corporation Page 4 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

TABLE OF CONTENTS (Continued)

D.3 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]
- D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.3.3 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.3.4 Visible Emissions Notations
- D.3.5 Parametric Monitoring
- D.3.6 Baghouse Inspections
- D.3.7 Broken or Failed Bag Detection

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.8 Record Keeping Requirements

D.4 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]
- D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]
- D.4.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]
- D.4.4 Sulfur Dioxide (SO₂)
- D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.4.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.7 Visible Emissions Notations

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.4.8 Record Keeping Requirements
- D.4.9 Reporting Requirements

D.5 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.2 40 CFR Part 60, Subpart Kb (Volatile Organic Storage Vessels)

Compliance Determination Requirements

D.5.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.4 Record Keeping Requirements

PQ Corporation Page 5 of 49 Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

TABLE OF CONTENTS (Continued)

Certification
Emergency Occurrence Report
Natural Gas Fired Boiler Certification
Quarterly Deviation and Compliance Monitoring Report

PQ Corporation Page 6 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Anderson Office of Air Quality. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a sodium silicate manufacturing facility.

Responsible Official: Walter Fasold

Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015

Phone Number: 765-643-6649

SIC Code: 2819 County Location: Madison

Source Location Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source, under PSD; Area Source, Section 112 of the

Clean Air Act

1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas fired boiler, constructed in 1992, rated at eleven (11) million British thermal units (MMBtu) per hour, and exhausting at one (1) stack, identified as S-02. The boiler was constructed in 1992.
- (b) One (1) regenerative furnace with a maximum capacity of six (6) tons of sodium silicate per hour, fired by natural gas or fuel oils, and exhausting to stack S-01. The furnace was constructed in 1920 and is fired using natural gas, No. 2, No. 4, or No. 6 fuel oils which have a maximum sulfur content of 0.5%.
- (c) One (1) sodium silicate grinding and packaging facility, consisting of a crusher, feeder hopper, vibrating feeder, ball mill, classifier, cyclone, mechanical conveyers and packaging area, all exhausting through one (1) baghouse for particulate control, identified as CD-02. This facility was constructed in 1971.
- (d) One (1) sodium silicate bulk loading and unloading facility, consisting of a crusher, mechanical conveyor and hopper, and equipped with a baghouse for particulate control, identified as CD-01. The product loading and unloading facility was constructed in 1991.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Paved and unpaved roads and parking lots with public access [326-IAC 6-5].

PQ Corporation Page 7 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

(b) Other categories with emissions below significant thresholds:

- (1) Two (2) 50,000 gallon fuel oil storage tanks emitting less than three (3) pounds per hour of VOC [326 IAC 12-1] [40 CFR 60, Subpart Kb].
- (2) Silica and soda ash unloading emitting less than five (5) pounds per hour of PM [326 IAC 6-32].
- (3) Filter aid transfer to admix tank emitting less than five (5) pounds per hour of PM [326 IAC 6-3-2].

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because it is a major source, as defined in 326 IAC 2-7-1(22).

Permit Reviewer: ERG/AB

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and Anderson Office of Air Quality, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by Anderson Office of Air Quality.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018 PQ Corporation Page 9 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall furnish to IDEM, OAQ, and Anderson Office of Air Quality within a reasonable time, any information that IDEM, OAQ, and Anderson Office of Air Quality may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Anderson Office of Air Quality copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U.S. EPA along with a claim of confidentiality [326 IAC 2-7-5(6)(E)].
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA. The Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

PQ Corporation Page 10 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Quality on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, and Anderson Office of Air Quality may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

PQ Corporation Page 11 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittees control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and Anderson Office of Air Quality upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Anderson Office of Air Quality. IDEM, OAQ, and Anderson Office of Air Quality may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Anderson Office of Air Quality makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Anderson Office of Air Quality within a reasonable time.

PQ Corporation Page 12 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Anderson Office of Air Quality within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,

Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

Telephone Number: 765-648-6158 (ask for Office of Air Quality)

Facsimile Number: 765-648-5924

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

PQ Corporation Page 13 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, and Anderson Office of Air Quality may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, and Anderson Office of Air Quality by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a

PQ Corporation Page 14 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superceded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, or Anderson Office of Air Quality shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, or Anderson Office of Air Quality has issued the modifications. [326 IAC 2-7-12(c)(7)]

PQ Corporation Page 15 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

(h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, or Anderson Office of Air Quality has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated

PQ Corporation Page 16 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or Anderson Office of Air Quality determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, or Anderson Office of Air Quality to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, or Anderson Office of Air Quality at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, or Anderson Office of Air Quality may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and Anderson Office of Air Quality and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
 - (1) A timely renewal application is one that is:

PQ Corporation Page 17 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Quality on or before the date it is due.
- (2) If IDEM, OAQ, and Anderson Office of Air Quality, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3] If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, and Anderson Office of Air Quality, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, and Anderson Office of Air Quality, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)] If IDEM, OAQ, and Anderson Office of Air Quality fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

PQ Corporation Page 18 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC

PQ Corporation Page 19 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and Anderson Office of Air Quality in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a).

For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
 The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]

 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Anderson Office of Air Quality, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy any records that must be kept under the conditions of this permit;

PQ Corporation Page 20 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

(c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

- (d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, and Anderson Office of Air Quality within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b) if the Permittee does not receive a bill from IDEM, OAQ, and Anderson Office of Air Quality the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

Anderson, Indiana Permit Reviewer: ERG/AB

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

Opacity [326 IAC 5-1]) C.2

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute (a) averaging period as determined in 326 IAC 5-1-4.
- Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (b) (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A. Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan to be submitted by the permittee to IDEM.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

PQ Corporation Page 22 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3)(e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management Asbestos Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control

PQ Corporation Page 23 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and Anderson Office of Air Quality not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and Anderson Office of Air Quality, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

PQ Corporation Page 24 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

PQ Corporation Page 25 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.
- (b) Whenever a condition in this permit requires the measurements of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be not less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

within ninety (90) days after the date of issuance of this permit.

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40

PQ Corporation Page 26 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(c) A verification to IDEM, OAQ, and Anderson Office of Air Quality that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ and Anderson Office of Air Quality upon request and shall be subject to review and approval by IDEM, OAQ, and Anderson Office of Air Quality. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:

PQ Corporation Page 27 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

(1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt

action was taken to correct the monitoring equipment.

- (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied;
- (3) An automatic measurement was taken when the process was not operating;
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.

At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter.

Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C -Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

PQ Corporation Page 28 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
 - (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Quality on or before the date it is due.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required data, reports, and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner and Anderson Office of Air Quality makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner and Anderson Office of Air Quality within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

PQ Corporation Page 29 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Quality on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

PQ Corporation Page 30 of 49 Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

PQ Corporation Page 31 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: One (1) natural gas fired boiler, rated at eleven (11) MMBtu per hour, exhausting at one (1) stack, identified as S-02.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from the 11 MMBtu per hour heat input boiler shall be limited to 0.58 pounds per MMBtu heat input.

This limitation is based on the following equation:

 P_t ' $\frac{1.09}{Q^{0.26}}$ where P_t = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input (11MMBtu/hr).

D.1.2 Particulate Matter Limitation [326 IAC 12-1)]

Although this boiler is subject to 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial - Commercial - Institutional Steam Generating Units), there are no emission limitations applicable to this boiler, only record keeping requirements described in D.1.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.4 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of (1) and (2).
 - (1) Monthly fuel records; and
 - (2) A certification; signed by the owner or operator, that the records of the fuel usage represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

PQ Corporation Page 32 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

D.1.5 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the 6 month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall certify, on the form provided, that Natural gas was fired in the boiler at all times during each quarter.

PQ Corporation Page 33 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) sodium silicate grinding and packaging facility, consisting of a crusher, feeder hopper, vibrating feeder, ball mill, classifier, cyclone, mechanical conveyor and packaging area, all exhausting through one (1) baghouse for particulate control, identified as CD-02.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the sodium silicate grinding and packaging facility shall not exceed 7.1 pounds per hour when operating at a process weight rate of 2.25 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

Compliance Determination Requirements

D.2.2 Particulate Matter (PM)

To comply with D.2.1, the baghouse (CD-02)for PM control shall be in operation and control emissions from the grinding and packaging facility at all times that the grinding and packaging facility is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.3 Visible Emissions Notations

- (a) Visible emission notations of the sodium silicate grinding and packaging facility stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take

PQ Corporation Page 34 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.2.4 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the grinding and packaging facility, at least once per shift when the grinding and packaging facility is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications and Other Instruments, of this permit, shall be subject to approval by IDEM, OAQ, and Anderson Office of Air Quality and shall be calibrated at least once every six (6) months.

D.2.5 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the grinding and packaging operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if these are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.7 Record Keeping Requirements

- (a) To document compliance with Condition D.2.3, the Permittee shall maintain records of visible emission notations of the grinding and packaging exhaust once per shift.
- (b) To document compliance with Condition 2.4, the Permittee shall maintain the following:

PQ Corporation Page 35 of 49 Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

- Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle operation.
- (2) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.2.5, the Permittee shall maintain records of the inspections of the baghouse required under Condition D.2.5 and any resulting bag replacement.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements of this permit.

PQ Corporation Page 36 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) sodium silicate bulk loading and unloading facility, consisting of a crusher, mechanical conveyor and hopper, and equipped with a baghouse for particulate control, identified as CD-01.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the sodium silicate bulk loading and unloading facility shall not exceed 35.4 pounds per hour when operating at a process weight rate of 25 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.3.3 Particulate Matter (PM)

To comply with D.3.1, the baghouse (CD-01)for PM control shall be in operation and control emissions from the sodium silicate loading and unloading facility at all times that the sodium silicate loading and unloading facility is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.4 Visible Emissions Notations

- (a) Visible emission notations of the sodium silicate loading and unloading facility stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

PQ Corporation Page 37 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.3.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the loading operation, at least once per shift when the sodium silicate loading and unloading facility is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications and Other Instruments, of this permit, shall be subject to approval by IDEM, OAQ, and Anderson Office of Air Quality and shall be calibrated at least once every six (6) months.

D.3.6 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the sodium silicate loading and unloading facility when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B Emergency Provisions). Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).

PQ Corporation Page 38 of 49 Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.8 Record Keeping Requirements

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of visible emission notations of the loading facility stack exhaust once per shift.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain the following:
 - Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle operation.
 - (2) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.3.5, the Permittee shall maintain records of the inspections of the baghouse required under Condition D.3.5 and any resulting bag replacement.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

PQ Corporation Page 39 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) regenerative furnace with a maximum capacity of six (6) tons of glass per hour, fired by natural gas or fuel oil, and exhausting to stack S-01. The furnace is fired using No.2, No.4, or No.6 fuel oils which have a maximum sulfur content of 0.5%.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the furnace shall not exceed 13.6 pounds per hour when operating at a process weight rate of 6 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device (if applicable).

D.4.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the furnace shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting distillate fuel oil and one and sixth-tenths (1.6) pounds per million Btu heat input while combusting residual oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.4.4 Sulfur Dioxide (SO₂)

The sulfur content of the fuel oil shall not exceed 0.5%.

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.4.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.4.3 and D.4.4 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

PQ Corporation Page 40 of 49
Anderson, Indiana OP No. T095-7567-00027
Permit Reviewer: ERG/AB

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

- (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the furnace using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.7 Visible Emissions Notations

- (a) Visible emission notations of the furnace stack exhaust shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.8 Record Keeping Requirements

- (a) To document compliance with Condition D.4.2 and D.4.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.4.2.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the

PQ Corporation Page 41 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

natural gas fired furnace certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.4.6, the Permittee shall maintain records of visible emission notations of the furnace stack S-01 exhaust while combusting fuel oil.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.4.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.6 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

PQ Corporation Page 42 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) Paved and unpaved roads and parking lots with public access.
- (b) Two (2) 50,000 gallon fuel oil storage tanks.
- (c) Silica and soda ash unloading.
- (d) Filter aid transfer to admix tank.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the unloading of soda ash, unloading of sand, and the transfer of filter aid shall not exceed the allowable PM emissions rate based on the following equations:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour.

Interpolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 55.0 P^{0.11}$ -40 where E =rate of emission in pounds per hour; and P =process weight rate in tons per hour.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.2 40 CFR Part 60, Subpart Kb (Volatile Organic Storage Vessels)

- (a) The three (3) 17,000 gallon mill emulsion storage tanks are subject to 40 CFR Part 60, Subpart Kb because the maximum capacity of each tank is greater than 40 m³ that is used to store volatile organic liquids for which construction, reconstruction, or modification commenced after July 23, 1984.
- (b) The tanks are exempt from the General Provisions (Part 60, subpart A) and from the provisions of this subpart because the tanks have a capacity less than 75 m³ storing liquid, except for the record keeping requirements in D.5.4.

Compliance Determination Requirements

D.5.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

PQ Corporation Page 43 of 49 Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.4 Record Keeping Requirements

To document compliance with Condition D.5.2, the Permittee shall keep readily accessible records showing the dimension of the storage tanks and an analysis showing the capacity of the storage tanks.

PQ Corporation Page 44 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Office of Air Quality COMPLIANCE DATA SECTION and Anderson Office of Air Quality

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: PQ Corporation

Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015. Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015

	ng Address: 70 Permit No.:	T095-7567-00027		
	This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.			
	Please check wha	at document is being certified:		
9	Annual Compliance Certification Letter			
9	Test Result (specify)			
9	Report (specify)			
9	Notification (spec	ify)		
0	Affidavit (anacifu)			
9	Affidavit (specify)			
9	Other (specify)			
I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.				
Signature:				
Printed Name:				
Title/Position:				
Dat	Date:			

PQ Corporation Page 45 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Office of Air Quality COMPLIANCE BRANCH P.O. Box 6015 100 North Senate Avenue Indianapolis, Indiana 46206-6015 Phone: 317-233-5674

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

Fax: 317-233-5967

PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: PQ Corporation

Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015

Part 70 Permit No.: T095-7567-00027

This form consists of 2 pages

Page 1 of 2

9	This is	an	emergency	as	defined	in	326	IAC	2-7-	1(1	2)
---	---------	----	-----------	----	---------	----	-----	-----	------	-----	----

- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

Page 46 of 49 OP No. T095-7567-00027

f any of the following are not applicable,	mark N/A	Page 2 of 2	
Date/Time Emergency started:			
Date/Time Emergency was corrected:			
Was the facility being properly operated Describe:	I at the time of the emergency? Y	N	
Type of Pollutants Emitted: TSP, PM-10), SO ₂ , VOC, NO _x , CO, Pb, other:		
Estimated amount of pollutant(s) emitte	d during emergency:		
Describe the steps taken to mitigate the	e problem:		
Describe the corrective actions/respons	se steps taken:		
Describe the measures taken to minimize	ze emissions:		
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:			
Form Completed by:			
Title / Position:			
Date:			
Phone:			

A certification is not required for this report.

PQ Corporation Page 47 of 49
Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Office of Air Quality COMPLIANCE DATA SECTION

(and Anderson Office of Air Quality)

PART 70 OPERATING PERMIT NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: PQ Corporation Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Part 70 Permit No.: T095-7567-00027 This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit. Report period Beginning: Ending: Days burning alternate fuel Alternate Fuel From To I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature: Printed Name: Title/Position: Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is not required for this report.

PQ Corporation Page 48 of 49 Anderson, Indiana OP No. T095-7567-00027

Permit Reviewer: ERG/AB

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Office of Air Quality COMPLIANCE DATA SECTION (and Anderson Office of Air Quality)

PART 70 OPERATING PERMIT QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: PQ Corporation

Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Mailing Address: 1990 Columbus Avenue, Anderson, Indiana 46015

Part 70 Permit No.: T095-7567-00027

Months:toYear: _	 Page 1 of 2			
This report is an affirmation that the source has me report shall be submitted quarterly based on a caler the date(s) of each deviation, the probable cause of be reported. Deviations that are required to be reported according to the schedule stated in the application in this report. Additional pages may be attached please specify in the box marked "No deviations oc	et all the requirements stated in this permit. This indar year. Any deviation from the requirements, of the deviation, and the response steps taken must ported by an applicable requirement shall be oplicable requirement and do not need to be tached if necessary. If no deviations occurred,			
9 NO DEVIATIONS OCCURRED THIS REPORTIN	NG PERIOD.			
9 THE FOLLOWING DEVIATIONS OCCURRED T	HIS REPORTING PERIOD			
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				

Page 49 of 49 OP No. T095-7567-00027

Page 2 of 2

	raye 2 01 2			
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Form Completed By:				
Title/Position:				
Date:				
Phone:				

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Operating Permit

Source Name: PQ Corporation

Source Location: 1900 Columbus Avenue, Anderson, Indiana 46015

County: Madison SIC Code: 2819

Operation Permit No.: T095-7567-00027

Permit Reviewer: ERG/AB

On October 26, 2000, the Office of Air Quality (OAQ) had a notice published in the Herald Bulletin, Anderson, Indiana, stating that the PQ Corporation had applied for a Part 70 Operating Permit to operate a sodium silicate manufacturing plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table of Contents has been modified to reflect these changes.

Entire Document

1. As of January 1, 2001, the Office of Air Management is now known as the Office of Air Quality. The permit and this addendum have been updated to reflect this name change.

Front Page

1. The expiration date has been added to the signature box. The Administration and Development Section is responsible for typing in the issuance date and the expiration date.

Section A

A.1 (General Information) the following rule cite which is the definition of a major source in 326 IAC 2-7 has been added. The phone number of the contact person has been removed, because it is cumbersome to do an administrative amendment every time the telephone number changes.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a sodium silicate manufacturing facility.

Responsible Official: Walter Fasold

Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015

Phone Number: 765-643-6649

SIC Code: 2819 County Location: Madison PQ Corporation Page 2 of 31
Anderson, Indiana T095-7567-00027

Permit Reviewer: ERG/AB

Source Location Status: Attainment for all criteria pollutants

Source Status: Part 70 Permit Program

Minor Source, under PSD; Area Source, Section 112 of the

Clean Air Act

1 of 28 Source Categories

1. A.2 (Emission Units and Pollution Control Equipment Summary) the date of construction has been added to the facility description.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas fired boiler, constructed in 1992, rated at eleven (11) million British thermal units (MMBtu) per hour, and exhausting at one (1) stack, identified as S-02.

 The boiler was constructed in 1992.
- (b) One (1) regenerative furnace with a maximum capacity of six (6) tons of sodium silicate per hour, fired by natural gas or fuel oils, and exhausting to stack S-01. The furnace was constructed in 1920 and is fired using natural gas, No. 2, No. 4, or No. 6 fuel oils which have a maximum sulfur content of 0.5%.
- (c) One (1) sodium silicate grinding and packaging facility, consisting of a crusher, feeder hopper, vibrating feeder, ball mill, classifier, cyclone, mechanical conveyors and packaging area, all exhausting through one (1) baghouse for particulate control, identified as CD-02. **This facility was constructed in 1971.**
- (d) One (1) sodium silicate bulk loading and unloading facility, consisting of a crusher, mechanical conveyor and hopper, and equipped with a baghouse for particulate control, identified as CD-01. **The product loading and unloading facility was constructed in 1991**.

Section B

1. B.1 (Permit No Defense) has been deleted. This is not in IC13, but we do have the general authority for this in 326 IAC 2-7-15. Therefore, most of this language has been added to B.14 (Permit Shield). B.14 provides for when the possession of a permit does provide a defense and provides that it is only for those requirements in existence at the time of permit issuance.

B.1 Permit No Defense [IC 13]

- (a) Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield.

PQ Corporation Page 3 of 31 Anderson, Indiana T095-7567-00027

Permit Reviewer: ERG/AB

 B.3 (Permit Term) language has been added to clarify that amendments, revisions or modifications do not extend the expiration date of the permit. The expiration date will always be 5 years from the issuance date of the original permit. The expiration date will now be typed in the signature box as well.

B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the effective original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

- 3. B.8 (Duty to Supplement and Provide Information) The condition has been reworded to match the language in the rule.
- B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]
 - (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall furnish to IDEM, OAQ, and Anderson Office of Air Quality within a reasonable time, any information that IDEM, OAQ, and Anderson Office of Air Quality may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Anderson Office of Air Quality copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]
- (c) Upon request, the Permittee shall also furnish to IDEM, OAQ, and Anderson Office of Air Quality copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to When furnishing copies of requested records directly to U. S. EPA, then the Permittee must furnish record directly to the U. S. EPA. the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

- 4. B.9 (Compliance with Permit Conditions) (c) has been added to clarify that an emergency does constitute a defense in an enforcement action if the Permittee complies with the emergency procedures.
- B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]
 - (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
 - (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
 - (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.
 - (d) B.10 (Certification) (b) has been modified to clarify when a certification is needed.
- B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
 - (b) One (1) certification shall be included, on using the attached Certification Form, with each submittal requiring certification.
- 5. B.11 (Annual Compliance Certification) paragraph (a) has been revised to clarify that the initial certification is from the date of issuance until Dec. 31. Paragraph (c) has been revised so that it matches the language in the rule.
- B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]
 - (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent The certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015 and Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Quality on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification:
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining **the** compliance **status** of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, and Anderson Office of Air Quality may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- 6. B.12 (Preventive Maintenance Plan) the record keeping requirements have been added to this condition.
- B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]
 - (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

Page 6 of 31 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

If, due to circumstances beyond it's the **Permittee's** control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and Anderson Office of Air Quality upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Anderson Office of Air Quality. IDEM, OAQ, and Anderson Office of Air Quality may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Anderson Office of Air Quality makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Anderson Office of Air Quality within a reasonable time.
- 7. B.13 (Emergency Provisions) a reference to the Emergency Occurrence Report Form has been added to B.13(b)(5). The emergency form is for emergencies only, and is no longer an emergency and deviation form. All deviations will now be reported on the Quarterly Deviation and Compliance Monitoring Report. Paragraph (d) part of the first sentence has been deleted. Since we know it is a TV source, then we also know the malfunction rule has been superceded by the emergency rule. Paragraph (f) "compliance" has been changed to "accordance".

B.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission

PQ Corporation Page 7 of 31 Anderson, Indiana T095-7567-00027

Permit Reviewer: ERG/AB

limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Anderson Office of Air Quality within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,

Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

Telephone Number: 765-648-6158 (ask for Office of Air Quality)

Facsimile Number: 765-648-5924

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent notice, either in writing by mail or facsimile, of the emergency to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency:
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, and Anderson Office of Air Quality may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, and Anderson Office of Air Quality by telephone or facsimile of an emergency lasting more than one (1) hour in compliance accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

8. B.14 (Permit Shield) some of the language from B.1 has been added to it. B.14(d) some of the language has been removed because it is unnecessary and would be contradictory to our revising operating permits. Construction permit terms are covered in the definition of applicable requirements.

B.14 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed

compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, and Anderson Office of Air Quality shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (e) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (f) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (g) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

- (h) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, and Anderson Office of Air Quality has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (i) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, and Anderson Office of Air Quality has issued the modification. [326 IAC 2-7-12(b)(7)]
- 9. B.16 (Deviations from Permit Requirements and Conditions) we are no longer requiring sources to report deviations in 10 days. Now they will report deviations quarterly on the Quarterly Deviation and Compliance Monitoring Report. References to the emergency report have been removed since deviations will not be reported on that form anymore. There is no longer a 5% exception for reporting deviations, since we relaxed the 10 day notification to a quarterly report.
- B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
 - (a) Deviations from any permit requirements (for emergencies see Section B Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management Compliance Branch **Data Section**, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

within ten (10) calendar days from the date of the discovery of the deviation using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3)(2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.
- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.
- 10. B.17 (Permit Modification, Reopening, Revocation and Reissuance, or Termination) the "and" has been changed to "or" since the reopening could be done by either the local or the state agency.
- B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]
 - (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, -and or Anderson Office of Air Quality at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, -and or Anderson Office of Air Quality may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]
- 11. B.19 (Permit Amendment or Modification) 326 IAC 2-7-4(f) requires all applications to be certified by the responsible official, therefore this condition has been revised to clarify that. EPA has also requested this change.
- B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]
 - (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
 - (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
- 12. B.21 (Operational Flexibility) (b) has been reorganized a bit. Paragraph (b)(1) was taken out so the condition would be consistent with the language in the rule.
- B.21 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
 - (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). and the following additional conditions:
- (1) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).
 - (2) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (A)(1) A brief description of the change within the source;
 - (B)(2) The date on which the change will occur;
 - (C)(3) Any change in emissions; and
 - (D)(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- 13. B.22 (Source Modification Requirement) 326 IAC 2 has been added to make the condition more complete. The language "applicable provisions" has been removed because it is unnecessary.
- B.22 Source Modification Requirement [326 IAC 2] [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the applicable provisions of 326 IAC 2 and 326 IAC 2-7-10.5.

- 14. B.23 (Inspection and Entry) "At reasonable times" has been deleted because neither the rule nor the statute limit us. We could ask for those things at any time.
- B.23 Inspection and Entry [326 IAC 2-7-6(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Anderson Office of Air Quality U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit; PQ Corporation Page 13 of 31 Anderson, Indiana T095-7567-00027

Permit Reviewer: ERG/AB

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

 [326 IAC 2-7-6(6)]
- 15. B.24 (Transfer of Ownership or Operational Control) 326 IAC 2-7-4(f) requires all applications to be certified by the responsible official, therefore this condition has been revised to clarify that. EPA has also requested this change.

B.24 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

The application which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
- 16. B.25 (Annual Fee Payment) add the following rule cite to paragraph (a).

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

(a) The Permittee shall pay annual fees to IDEM, OAQ, and Anderson Office of Air Quality within thirty (30) calendar days of receipt of a billing. **Pursuant 326 IAC 2-7-19(b)**, if the

PQ Corporation Page 14 of 31 Anderson, Indiana T095-7567-00027

Permit Reviewer: ERG/AB

Permittee does not receive a bill from IDEM, OAQ, or Anderson Office of Air Quality the applicable fee is due April 1 of each year.

- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

Section C

- 1. C.6 (Fugitive Particulate Matter Emission Limitations) has been changed to indicate that a plan will be submitted by the Permittee.
- C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan **to be** submitted by the permittee to IDEM. The plan does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- 2. C.7 (Operation of Equipment) the following revisions were made to clarify the condition.
- C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided **by statute**, **rule**, **or** in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

- 3. C.8 (Stack Height) language has been added to clarify which parts of 326 IAC 1-7 are not federally enforceable.
- C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

- 4. C.9 (Asbestos Abatement Projects) the rule cite in the title was changed to make it more generalized.
- C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140] [40 CFR 61, Subpart M]
- 5. C.10 (Performance Testing) "within" has been changed to "not later than".
- C.10 Performance Testing [326 IAC 3-6]
 - (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, and Anderson Office of Air Quality within not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and Anderson

Page 15 of 31 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

Office of Air Quality, if the source submits to IDEM, OAQ, a reasonable written explanation within not later than five (5) days prior to the end of the initial forty-five (45) day period.

- 6. C.12 (Compliance Monitoring) there are times when compliance monitoring is required by a MACT that the source does not have to comply with yet. Therefore, language has been added to clarify that the permit will specify when CM doesn't have to start in 90 days. The same idea applies to new units, if the MACT doesn't apply yet, we would not expect the source to start compliance monitoring.
- C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

7. C.13 (Maintenance of Emission Monitoring Equipment) the language has been tweaked to clarify the intent.

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter

PQ Corporation Page 16 of 31 Anderson, Indiana T095-7567-00027

Permit Reviewer: ERG/AB

should be implemented at intervals no less **often** than **once an** one (1) hour until such time as the continuous monitor is back in operation.

8. C.14 (Monitoring Methods) the following rule cites have been added.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, **40 CFR 60 Appendix B, 40 CFR 63**, or other approved methods as specified in this permit.

- 9. C.15 (Pressure Gauge Specifications) rule cites have been added. Language has been added for other instrument specifications.
- C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
 - (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.
 - (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.
 - (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.
- 10. C.17 (Risk Management Plan) if a source is subject to 40 CFR 68, they should have already submitted a Risk Management Plan.

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
- 11. C.18 (Compliance Monitoring Plan Failure to Take Response Steps) little grammatical changes were made. (a) "of" was added. (c) ";or" has been replaced with a period. (f) "(5%)" has been added to be consistent with the rest of the permit. Also, changes were made to (a)(5) and (f) due to frequently asked questions.
- C.18 Compliance Monitoring Plan Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]
 - (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole **of** information contained in other documents, or consist of a combination of new information and information contained in other documents. If the

compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

- (1) This condition;
- (2) The Compliance Determination Requirements in Section D of this permit;
- (3) The Compliance Monitoring Requirements in Section D of this permit;
- (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, and Anderson Office of Air Quality upon request and shall be subject to review and approval by IDEM, OAQ, and Anderson Office of Air Quality. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps shall may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.; or
 - (3) An automatic measurement was taken when the process was not operating.; or
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

PQ Corporation Page 18 of 31
Anderson, Indiana T095-7567-00027
Permit Reviewer: ERG/AB

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.
 - At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides such failure providing adequate justification is documented and documents that such failures do not exceed five percent (5%) of the operating time in any quarter.
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.
- 12. C.19 (Actions Related to Noncompliance Demonstrated by a Stack Test) "corrective actions" has been changed to "response actions" to be consistent with the rest of the permit.
- C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]
 - (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this
 permit, the Permittee shall take appropriate corrective response actions. The Permittee
 shall submit a description of these corrective response actions to IDEM, OAQ, within
 thirty (30) days of receipt of the test results. The Permittee shall take appropriate action
 to minimize excess emissions from the affected facility while the corrective response
 actions are being implemented.
- 13. C.20 (Emission Statement) "estimated" was added to (a)(1) and (a)(2) because that is how 326 IAC 2-6 describes emissions.
- C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
 - (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
 - (1) Indicate **estimated** actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate **estimated** actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

14. C.21 (General Record Keeping Requirements) "monitoring" was removed so that the condition will seem more generalized to all record keeping, "reports" was added to clarify that the source must keep copies of those as well. (b) and (c) have been removed because they were unnecessary. If we wanted records of those things, we would specify it in D or elsewhere in the permit.

C 21	General Record Keeping Requirements	[326 JAC 2-7-5(3)] [326 JAC 2-7-6]
0.21	Ocheral Necola Necpling Negalierieris	1320 170 2-1-3(3)1 1320 170 2-1-01

(a) Records of all required monitoring data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner and Anderson Office of Air Quality makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner and Anderson Office of Air Quality within a reasonable time.

(b)	Records of required monitoring information shall include, where applicable.		
	(1)	The date, place, and time of sampling or measurements;	
	(2)	The dates analyses were performed;	
	(3)	The company or entity performing the analyses;	
	(4)	The analytic techniques or methods used;	
	(5)	The results of such analyses; and	
	(6)	The operating conditions existing at the time of sampling or measurement.	
(c)	— Suppo	ort information shall include, where applicable:	
	(1)	Copies of all reports required by this permit;	
	2.	All original strip chart recordings for continuous monitoring instrumentation;	
	(3)	All calibration and maintenance records;	
	(4)	Records of preventive maintenance.	

- (d)(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- 15. C.22 (General Reporting Requirements) the Semi-Annual Compliance Monitoring Report is now the Quarterly Deviation and Compliance Monitoring Report. References to the emergency report has been removed, all the information is in B.13. In (d) we have clarified that the report does need to be certified by the responsible official, this change is also reflected in all the D sections and the reporting forms. EPA has also requested this change.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit The source shall submit a the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from the permit requirements, and, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Quality P.O. Box 2100 120 East 8th Street Anderson, IN 46018

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Quality on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do-not-require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
 - (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
 - (g)(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Section D.1

1. D.1.5 (Reporting Requirements) these reports should be certified by the responsible official. Part 70 requires all reports to be certified. EPA has also requested this change. In addition, the reporting requirements have been changed from "semi-annual" to "quarterly."

D.1.5 Reporting Requirements

A **quarterly** semi-annual summary of the information to document compliance with Condition D.1.1shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the 6 month period being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

2. D.1.1 (Particulate Matter (PM)) the numbers used in the equation have been added for clarification.

D.1.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from the 11 MMBtu per hour heat input boiler shall be limited to 0.58 pounds per MMBtu heat input.

This limitation is based on the following equation:

 $P_t = 1.09 / Q^{0.26}$ where $P_t = P_t$ Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input (11 MMBtu/hr).

Section D.2

1. D.2.2 (Particulate Matter (PM)) language has been added to clarify which condition the baghouse is needed to show compliance.

D.2.2 Particulate Matter (PM)

To comply with D.2.1, the baghouse (CD-02) for PM control shall be in operation and control emissions from the grinding and packaging facility at all times when the grinding and packaging facility are in operation.

2. D.2.3 (Visible Emission Notations) paragraph (e), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

D2.3 Visible Emissions Notations

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

3. D.2.4 (Parametric Monitoring), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

D.2.4 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the grinding and packaging facility, at least once per shift when the grinding and packaging facility is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications **and Other Instruments**, of this permit, shall be subject to approval by IDEM, OAQ, and Anderson Office of Air Quality and shall be calibrated at least once every six (6) months.

4. D.2.6 (Broken or Failed Bag Detection) in paragraph (a), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

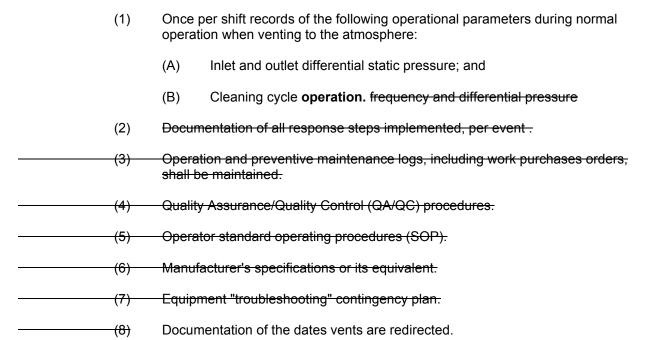
D.2.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions). Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- 5. D.2.7 (Record Keeping Requirements) (b)(1)(B) has been changed in order to avoid confusion. It now requires the source to record whether the cleaning cycle operation was normal. Lines (b)(2)-(7) have been deleted because they are not defined.

D.2.7 Record Keeping Requirements

(b) To document compliance with Condition D.2.4, the Permittee shall maintain the following:



Section D.3

1. D.3.3 (Particulate Matter (PM)) language has been added to clarify which condition the baghouse is needed to show compliance.

D.3.3 Particulate Matter (PM)

To comply with D.3.1, the baghouse (CD-01) for PM control shall be in operation and control emissions from the grinding and packaging facility at all times when the grinding and packaging facility are in operation.

2. D.3.4 (Visible Emission Notations) paragraph (e), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

D.3.4 Visible Emissions Notations

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- 3. D.3.5 (Parametric Monitoring), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

D.3.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the unloading facility, at least once per shift when the sodium silicate loading and unloading facility is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications **and Other Instruments**, of this permit, shall be subject to approval by IDEM, OAQ, and Anderson Office of Air Quality and shall be calibrated at least once every six (6) months.

4. D.3.7 (Broken or Failed Bag Detection) in paragraph (a), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

D.3.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions). Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- 5. D.3.8 (Record Keeping Requirements) (b)(1)(B) has been changed in order to avoid confusion. It now requires the source to record whether the cleaning cycle operation was normal. Lines (b)(2)-(7) have been deleted because they are often not defined or the data is not available.

D.2.7 Record Keeping Requirements

- (b) To document compliance with Condition D.3.5, the Permittee shall maintain the following:
 - Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle operation. frequency and differential pressure
 - (2) Documentation of all response steps implemented, per event.

(3)	Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 (4)	Quality Assurance/Quality Control (QA/QC) procedures.
 (5)	Operator standard operating procedures (SOP).
 (6)	Manufacturer's specifications or its equivalent.
 (7)	Equipment "troubleshooting" contingency plan.
 (8)	Documentation of the dates vents are redirected.

Section D.4

1. D.4.9 (Reporting Requirements) these reports should be certified by the responsible official. Part 70 requires all reports to be certified. EPA has also requested this change. In addition, the reporting requirements have been changed from "semi-annual" to "quarterly."

D.4.9 Reporting Requirements

A **quarterly** semi-annual summary of the information to document compliance with Condition D.1.1shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the 6 month period being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

2. D.4.7 (Visible Emission Notations) paragraph (e), language about failure to take response steps has been added. This will help clarify that not taking a response step will be considered a permit violation.

D.4.7 Visible Emissions Notations

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- 3. D.4.3 (Sulfur Dioxide (SO₂)) Language was added to specify how compliance shall be demonstrated. 326 IAC 7-1 is not federally enforceable, therefore the condition should state that.

D.4.3 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from the furnace shall not exceed five tenths (0.5) pounds per million Btu heat input while combusting distillate oil and one and sixth-tenths (1.6) pounds per million Btu heat input while combusting residual oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

Page 26 of 31 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

 D.4.6 (Sulfur Dioxide Emissions and Sulfur Content) "or" was added to (a)(1) to clarify that the source has an option between (1) and (2) for demonstrating that the sulfur dioxide emissions do not exceed 0.5 lb/ MMBtu.

D.4.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Conditions D.4.3 and D.4.4 shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a **vendor** certification; **or**
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the furnace using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Section D.5

1. The storage tanks referenced in Condition D.5.2 of the draft permit were incorrectly described as "three (3) 17,000 gallon mill emulsion storage tanks." The storage tanks should have been described as "two (2) 50,000 gallon fuel oil storage tanks." All other references to these storage tanks in the draft permit were checked for consistency and no other errors were found. Based on calculations made using the tanks program, estimated VOC emissions from the storage tanks are less than the 10 tons/year significance level for insignificant activities (326 IAC 2-7-1(21)(A) and 326 IAC 2-1.1-3 (d)(1)(D)). Condition D.5.2(b) incorrectly states that the tanks are exempt from the General Provisions (Part 60, Subpart A) because the tanks have storage capacities less than 75 m³. The storage tanks are exempt from the General Provisions (Part 60, Subpart A) and the provisions of 40 CFR Part 60, Subpart Kb because the tanks have a maximum true vapor pressure of less than 3.5 KPa. Condition D.5.2 has been amended as follows:

D.5.2 40 CFR Part 60, Subpart Kb (Volatile Organic Storage Vessels)

- (a) The three (3) 17,000 gallon mill emulsion The two (2) 50,000 gallon fuel oil storage tanks are subject to 40 CFR Part 60, Subpart Kb because the maximum capacity of each tank is greater than 40 m³ that is used to store volatile organic liquids for which construction, reconstruction, or modification commenced after July 23, 1984.
- (b) The tanks are exempt from the General Provisions (Part 60, subpart A) and from the provisions of this subpart because the tanks have a capacity less than 75 m3 storing

Page 27 of 31 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

liquid more than 151m³ and the liquid being stored has a maximum true vapor pressure of less than 3.5 kPa; except for the record keeping requirements in D.5.4.

Forms

- 1. Emergency/Deviation Occurrence Report Form is now called the Emergency Occurrence Report. All references to deviations have been removed. These forms should be sent to the Compliance Branch, not the Compliance Data Section. We have negotiated with EPA on the reporting of emergencies. They agree to allow the 2 day notification to come in without the responsible official certification as long as the emergencies are included in the Quarterly Deviation and Compliance Monitoring Report. That report is certified by the responsible official, therefore will comply with the Part 70 requirement to have all reports certified.
- 2. The quarterly reports will now need to be certified by the responsible official, therefore the last line in each of these reports have been changed from "A certification is not required for this report." to "Attach a signed certification to complete this report".
- 3. The Semi-Annual Compliance Monitoring Report, is now called the Quarterly Deviation Compliance Monitoring Report. The form now requires the source to not only report that there were deviations, but to also include the probable cause and the response steps taken. We are no longer requiring sources to report deviations in ten days, therefore every source will need submit this report quarterly. For sources with an applicable requirement which gives an alternate schedule for reporting deviations, those deviations will not need to be reported quarterly, but instead should be reported according to the schedule in the applicable requirement.

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Office of Air Quality

COMPLIANCE DATA SECTION BRANCH

P.O. Box 6015 100 North Senate Avenue Indianapolis, Indiana 46206-6015 Phone: 317-233-5674 Fax: 317-233-5967

and Anderson Office of Air Quality

PART 70 OPERATING PERMIT EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: PQ Corporation

Source Address: 1900 Columbus Avenue, Anderson, Indiana 46015 Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015

Part 70 Permit No.: T095-7567-00027

This form	m cons	ists of 2 pages	Page 1 of 2
Check (either N	o. 1 or No.2	
9 1.	- This is	s an emergency as defined in 326 IAC 2-7-1(12)	
	С	The Permittee must notify the Office of Air Quality (OAQ), within	
		hours (1-800-451-6027 or 317-233-5674, ask for Compliance \$	* *
	C	The Permittee must submit notice in writing by mail or by facsi	
		(Facsimile Number: 317-233-5967), and follow the other require	ements of 326 IAC 2-
		7-16	
9-2	This is	s a deviation, reportable per 326 IAC 2-7-5(3)(C)	
/ L .	r 11110 K		ander deve
	t	The Permittee must submit notice in writing within ten (10) cale	nuar uays

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency /Deviation :
Describe the cause of the Emergency /Deviation :

f any of the following are not applicable, ma	ark N/A	Page 2 of 2
Date/Time Emergency /Deviation started:		
Date/Time Emergency /Deviation was corr	ected:	
Was the facility being properly operated a Describe:	t the time of the emergency/ deviation ? Y	N
Type of Pollutants Emitted: TSP, PM-10, S	SO ₂ , VOC, NO _X , CO, Pb, other:	
Estimated amount of pollutant(s) emitted of	during emergency /deviation :	
Describe the steps taken to mitigate the p	roblem:	
Describe the corrective actions/response	steps taken:	
Describe the measures taken to minimize	emissions:	
	ntinued operation of the facilities are necessa e to equipment, substantial loss of capital inv ntial economic value:	
Form Completed by:		
Title / Position:		_
Date:		
Phone:		

A certification is not required for this report.

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Office of Air Quality **COMPLIANCE DATA SECTION** and Anderson Office of Air Quality

PART 70 OPERATING PERMIT QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: **PQ** Corporation

1900 Columbus Avenue, Anderson, Indiana 46015 Source Address: Mailing Address: 1900 Columbus Avenue, Anderson, Indiana 46015

Part 70 Permit No.: T095-7567-00027		
Months: to	Year:	 Page 1 of 2
This report is an affirmation that the source has n stated in this permit. This report shall be submitted deviation from the compliance monitoring required probable cause of the deviation, and the responsexceptions: Deviations that are required to be reparted to the schedule stated in the applicable report. Additional pages may be attached if neces the Emergency/Deviation Occurrence Report. If marked "No deviations occurred this reporting permitted in the source of the state of the schedule stated in the applicable report. If marked "No deviations occurred this reporting permitted in the source has not stated in the submitted in the schedule stated in the applicable report.	ted quarterly based on a calen- ements, and the date(s) of eac se steps taken must be reported ported by an applicable required e requirement and do not need essary. This form can be suppon o deviations occurred, please	dar year. Any th deviation, the ed. with the following ement shall be reported d to be included in this elemented by attaching
9 NO DEVIATIONS OCCURRED THIS REPORT	TING PERIOD.	
9 THE FOLLOWING DEVIATIONS OCCURRED) THIS REPORTING PERIOD	
Compliance Monitoring Permit Requirement (s	specify permit condition #)	
Date of each Deviation:	Duration of Deviation:	
Number of Deviations:		
Probable Cause of Deviation:		
Response Steps Taken:		
Compliance Monitoring Permit Requirement (s	specify permit condition #)	
Date of each Deviation:	Duration of Deviation:	
Number of Deviations:		
Probable Cause of Deviation:		
Response Steps Taken:		

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

Page 2 of 2

		1 age 2 01 2			
Compliance Monitoring Permit Require	ment (specify permit condition #)				
Date of each Deviation:	Duration of Deviation:				
Number of Deviations:					
Probable Cause of Deviation:					
Response Steps Taken:					
Compliance Monitoring Permit Require	ment (specify permit condition #)				
Date of each Deviation:	Duration of Deviation:				
Number of Deviations:					
Probable Cause of Deviation:					
Response Steps Taken:					
Compliance Monitoring Permit Require	ment (specify permit condition #)				
Date of each Deviation:	Duration of Deviation:				
Number of Deviations:					
Probable Cause of Deviation:					
Response Steps Taken:					
Form Completed By:					
		_			
Title/Position:		_			
Date:		_			
Phone:		_			

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management (and Anderson Office of Air Management)

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name: PQ Corporation

Source Location: 1900 Columbus Avenue, Anderson, Indiana 46015

County: Madison SIC Code: 2819

Operation Permit No.: T095-7567-00027

Permit Reviewer: ERG/AB

The Office of Air Management (OAM) has reviewed a Part 70 permit application from PQ Corporation relating to the operation of a sodium silicate manufacturing facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas fired boiler, constructed in 1992, rated at eleven (11) million British thermal units (MMBtu) per hour, exhausting at one (1) stack, identified at S-02.
- (b) One (1) regenerative furnace with a maximum capacity of six (6) tons of sodium silicate per hour, fired by natural gas or fuel oil, and exhausting to stack S-01. The furnace is fired using natural gas, No. 2, No. 4, or No. 6 fuel oils which have a maximum sulfur content of 0.5%.
- (c) One (1) sodium silicate grinding and packaging facility, consisting of a crusher, feeder hopper, vibrating feeder, ball mill, classifier, cyclone, mechanical conveyors and packaging area, all exhausting through one (1) baghouse for particulate control, identified as CD-02.
- (d) One (1) sodium silicate bulk loading and unloading facility, consisting of a crusher, mechanical conveyor and hopper, and equipped with a baghouse for particulate control, identified as CD-01.

Emission units (a) and (b) are currently not being operated by the facility; however, PQ Corporation specifically requested that these emission units be included in the Title V Permit because the company may need to operate them in the future.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Page 2 of 11 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour including:
 - (i) Four (4) 150,000 Btu per hour direct-fired heating unit;
 - (ii) Three (3) 200,000 Btu per hour direct-fired heating unit;
 - (iii) One (1) 100,000 Btu per hour direct-fired heating unit; and
 - (iv) One (1) 200,000 Btu per hour direct-fired heating unit.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filing of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (d) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (e) Refractory storage not requiring air pollution control equipment.
- (f) Packaging lubricants and greases.
- (g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (h) Heat exchanger cleaning and repair.
- (i) Paved and unpaved roads and parking lots with public access.
- (j) Equipment used to collect any material that might be released during malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers.
- (I) Emergency diesel generators not exceeding 1600 horsepower.
- (m) Purge double block and bleed valves.
- (n) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (o) Other categories with emissions below significant thresholds:
 - (1) Two (2) 50,000 gallon fuel oil storage tanks emitting less than three (3) pounds per hour of VOC.
 - (2) Silica and soda ash unloading emitting less than five (5) pounds per hour of PM.

(3) Filter aid transfer to admix tank emitting less than five (5) pounds per hour

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) City of Anderson Certificate to Operate, Permit #0070, issued on December 31, 1996;
- (b) City of Anderson Certificate to Operate, Permit #0071, issued on December 31, 1996;
- (c) City of Anderson Certificate to Operate, Permit #0072, issued on December 31, 1996; and
- (d) City of Anderson Certificate to Operate, Permit #0073, issued on December 31, 1996;

All conditions from previous approvals were incorporated into this Part 70 permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 31, 1996. Additional information was received on August 18, 2000 and August 31, 2000.

A notice of completeness letter was mailed to the source on January 29, 1997.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (page 1 through 5.)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	773
PM-10	771
SO ₂	165
VOC	5.9
CO	9.3
NO _x	206

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	negligible
Hexane	negligible
Toluene	negligible
Lead	negligible
Cadmium	negligible
Chromium	negligible
Magnesium	negligible
Nickel	negligible
TOTAL	<25

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10, SO_2 , and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1997OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	
PM-10	15
SO ₂	40
VOC	1
CO	16
NO _x	80
HAP	None

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Page 5 of 11 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

	Potential to Emit (tons/year)						
Process/facility	РМ	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Sodium Silicate Grinding Facility	2.53	2.53	0	0	0	0	0
Sodium Silicate Loading Facility	43.8	43.8	0	0	0	0	0
Regenerative Furnace	46.8	45.0	164.9	5.56	5.3	201.0	Negligible
Boiler	0.4	0.4	0.0	0.3	4.0	4.8	Negligible
Total Emissions	94	92	165	5.9	9.3	206	Negligible

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO_2	Attainment
Ozone	Attainment
СО	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Madison County has been classified as attainment or unclassifiable for PM-10, SO₂, CO, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) The two (2) 50,000 gallon fuel oil storage tanks are subject to the New Standard Performance Standard, 40 CFR Part 60, Subpart Kb (Volatile Organic Storage Vessels) (326 IAC 12) because the maximum capacity of each tank is greater than 40 m³ that is used to store volatile organic liquids for which construction, reconstruction, or modification commenced after July 23, 1984.

The tanks are exempt from the General Provisions (Part 60, subpart A) and from the control provisions of this subpart because the tanks have a capacity less than 75 m³ storing liquid.

Pursuant to 40 CFR Part 60, Subpart Kb, the Permittee shall:

- (1) maintain readily accessible records showing the dimension of the storage tanks and an analysis showing the capacity of the storage tanks.
- (b) The boiler is subject to the New Source Performance Standard, 40 CFR 60, Subpart Dc (Small Industrial-Commercial-Institutional Steam Generator Units)(326 IAC 12). Under this rule the permittee is not required to comply with the specific emission limitations, but is required to maintain the following records:
 - (1) Monthly fuel records; and
 - (2) A certification signed by the owner or operator, that the records of the fuel usage represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

The permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years from the date of monitoring.

- (c) The regenerative furnace is not subject to the requirements of the New Source Performance standard, 40 CFR 60, Subpart CC (Glass Manufacturing Plants)(326 IAC 12) because the furnace was constructed prior to the rule applicability date of June 15,1979. The only modifications to the furnace made since 1979 were routine maintenance activities, such as re-bricking, which are not considered modifications or reconstruction under this rule.
- (d) There are no National Emissions Standards for Hazardous Air Pollutants (NESHAPS)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source submitted a Preventive Maintenance Plan (PMP) on December 9, 1996. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM-10, SO_2 , and NO_x . Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

Page 7 of 11 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to this rule, the permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source, at or near ground level must be made by a qualified representative of IDEM [326 IAC 6-4-5(c)].

326 IAC 6-5 (Fugitive Particulate Matter Emissions)

Pursuant to this rule, the permittee shall control PM emissions at the source according to the control plan required in 326 IAC 6-5-3, to be submitted by the permittee to IDEM.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Pursuant to the city of Anderson Certificate to Operate, Permits 0071, 0072, and 0073, issued on December 31, 1996, the particulate matter (PM) from the grinding and packaging facility, loading and unloading facility, and regenerative furnace shall be limited as follows:

Facility	Process Weight Rate tons/hour	PM Emission Limit (lbs/hour)
Grinding and Packaging Facility	2.28	7.1
Loading and Unloading Facility	25	35.4
Regenerative Furnace	6	13.6

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$
 where $E =$ rate of emission in pounds per hour and $P =$ process weight rate in tons per hour

The baghouse identified as DC-02 shall be in operation at all times the grinding and packaging facility is in operation, in order to comply with this limit.

The baghouse identified as DC-01 shall be in operation at all times the loading and unloading facility is in operation, in order to comply with this limit.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating Constructed After September 21, 1983)

Pursuant to 326 IAC 6-2-4 (Emission Limitations for Facilities specified in 326 IAC 6-2-1(d)), the particulate emissions from the boiler shall be limited to 0.58 lb/MMBtu by the following equation:

PQ Corporation Anderson, Indiana Page 8 of 11

T095-7567-00027 Permit Reviewer: ERG/AB

> where P_t = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

> > Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input.

326 IAC 7-1.1-1 (Sulfur Dioxide (SO₂) Emissions Limitations)

Pursuant to 326 IAC-7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the furnace shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting distillate fuel oil, and one and sixth-tenths (1.6) pounds per million Btu heat input while combusting residual oil.

325 IAC 10-1 (Nitrogen Oxides Control)

This rule is not applicable to this source because this rule is specific to facilities located in Clark and Floyd Counties.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- 1. The grinding and packaging facility has applicable compliance monitoring conditions as specified below:
 - (a) Daily visible emissions notations of the grinding and packaging facility exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
 - (b) The Permittee shall record the total static pressure drop across the baghouse (CD-02) controlling the grinding and packaging facility, at least once daily when the grinding and packaging facility is in operation. Unless operated under

conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse (CD-02) shall be maintained within the range of 3.0 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (c) In the event that bag failure has been observed:
 - (i) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
 - (ii) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).

These monitoring conditions are necessary because the baghouse (CD-02) for the grinding and packaging facility must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

- 2. The bulk loading and unloading facility has applicable compliance monitoring conditions as specified below:
 - (a) Daily visible emissions notations of the bulk loading and unloading facility exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
 - (b) The Permittee shall record the total static pressure drop across the baghouse (CD-01) controlling the bulk loading and unloading facility, at least once daily when the bulk loading and unloading facility is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse (CD-01) shall be maintained within the range of 3.0 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting

Page 10 of 11 T095-7567-00027

PQ Corporation Anderson, Indiana Permit Reviewer: ERG/AB

contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (c) In the event that bag failure has been observed:
 - (i) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
 - (ii) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).

These monitoring conditions are necessary because the baghouse (CD-01) for the bulk loading and unloading facility must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

 The 11 MMBtu/hour boiler has applicable compliance monitoring conditions as specified below:

Daily visible emissions notations of the boiler stack exhaust (S-02) shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

This monitoring condition is necessary because the boiler must operate properly to ensure compliance with 326 IAC 6-2-4 (Particulate Matter Limitations for Sources of Indirect Heating) and 326 IAC 2-7 (Part 70).

- 4. The regenerative furnace has applicable compliance monitoring conditions as specified below:
 - (a) Daily visible emissions notations of the furnace exhaust stack (S-01) shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup

or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

- (b) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by
 - providing vendor analysis of fuel delivered, if accompanied by a certification or
 - (ii) analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19. Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling. Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the furnace using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

These monitoring conditions are necessary because the furnace must operate properly using low sulfur fuel oil to ensure compliance with 326 IAC 6-3 (Process Operations), 326 IAC 7-1.1-1, and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the 1990 Clean Air Act. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

None of the listed air toxics will be emitted from this source.

Conclusion

The operation of this sodium silicate manufacturing facility shall be subject to the conditions of the attached proposed Part 70 Permit No. T095-7567-00027.

Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 Small Industrial Boiler

Company Name: PQ Corporation
Address City IN Zip: Anderson, 46015
Part 70 Permit#: 095-7567-00027

PIt ID: 27

Reviewer: ERG/AB

Date: 08/15/2000

Heat Input Capacity Potential Throughput

MMBtu/hr MMCF/yr

11.0 96.4

Pollutant

	PM*	PM10*	SO2	NOx	VOC	СО
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.4	0.4	0.0	4.8	0.3	4.0

^{*}PM emission factor is filterable and condensable PM. PM10 emission factor is filterable and condensable PM10 combined.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

gasc99.wk4 9/95 updated 4/99

See page 2 for HAPs emissions calculations.

^{**}Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Appendix A: Emissions Calculations Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: PQ Corporation Address City IN Zip: Anderson, 46015

Part 70 Permit #: 095-7567-00027

PIt ID: 27

Reviewer: ERG/AB

Date: 08/15/2000

HAPs - Organics

Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.012E-04	5.782E-05	3.614E-03	8.672E-02	1.638E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.409E-05	5.300E-05	6.745E-05	1.831E-05	1.012E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations Particulate Emissions From The Sodium Silicate Grinding and Packaging Facility

Page 3 of 4 TSD App A

Company Name: PQ Corporation Address City IN Zip: Anderson, 46015 Part 70 Permit #: 095-7567-00027

PIt ID: 27

Reviewer: ERG/AB

Date: 08/21/2000

Bag House	Efficiency (%)**	PM Collected in Bag House (tons/year)**	Number of Process Hours (hours/week)**		Maximum Potential PM Emissions (tons/hour)	Maximum Potential PM Emissions After Controls (tons/hour)
DC-02	99.5	179.46	60	0.0575	506.40	2.53

^{**} Based on data provided by facility.

Appendix A: Emissions Calculations Particulate Emissions from Sodium Silicate Bulk Loading and Unloading

Company Name: PQ Corporation Address City IN Zi|Anderson, 46015 Part 70 Permit #: 095-7567-00027

> PIt ID: 27 Reviewer: ERG/AB

Date: 08/21/2000

Bag House	Bag House Efficiency (%)*	Particulate Content (% by weight)	Maximum Quantity Loaded (lbs/day)	Maximum Potential PM Emissions (lbs/Hour)	Maximum Potential PM Emissions (tons/year)	Maximum Potential PM Emissions After Controls (tons/year)
DC-01	80	0.2	600,000.00	50.00	219.00	43.80

^{*} Based on data provided by facility.